

General Land Application Plan for Biosolids King County

The King County Department of Natural Resources Wastewater Treatment Division manages biosolids as a resource which can be recycled. Biosolids are generated at two regional wastewater treatment plants: the West Point Treatment Plant (WP) and the East Section Reclamation Plant at Renton (ESRP). Biosolids from both facilities are used in a variety of land application projects (forestry, agriculture, soil improvement) to take advantage of its soil conditioning and plant nutrient value. A portion of King County's biosolids are further treated by a privately owned and operated composting facility, which distributes and markets the biosolids product.

Biosolids Distribution and Use

King County plans to continue its biosolids program in several geographical areas within Washington State. The land application program includes a diversity of end-uses, and the current demand for biosolids by farmers and landowners is greater than the supply. King County biosolids are or may be utilized in the following counties/water resource inventory areas:

<u>County</u>	<u>Water Resource Inventory Area</u>
King	Snohomish and Cedar/Sammamish
Yakima	Lower Yakima
Douglas	Foster, Moses Coulee
Benton	Lower Yakima
Pierce	Nisqually

Site-specific land application plans are included (appendices: project notebooks) for sites in King, Yakima, Douglas and Benton counties. Sites in Adams and Pierce counties have been permitted with jurisdictional health districts in recent years, but not in 1998. Some portion of our biosolids may be utilized in 1998 and beyond at a soil remediation Superfund site in Idaho (see section marked Notice of Intent). King County plans to continue current projects, which may be expanded to include additional acreage and land owners. New sites will be designed and managed consistent with operations plans and appropriate regulatory requirements.

Site Selection and Design

Potential land application sites are evaluated for suitability based on a number of factors including: topography/slopes, soils, presence of groundwater, annual precipitation, and the nutrient needs of crops and other vegetation. Local conditions such as zoning, neighboring land use and access routes are also reviewed. State, regional and federal guidance documents and design manuals are used in selecting and designing sites. Additional site selection and design assistance is provided by University of Washington, Washington State University biosolids researchers or extension agents, or professional soil scientists. Soil sampling is conducted prior to the first application at a site to document trace metal and nutrient concentrations. Additional information may be found in project site specific land application plans.

Site Management

Site specific plans and related information on land application programs (forestry, dryland agriculture and irrigated agriculture) are developed and updated as part of the local/state permitting process. The site specific land application plans for current programs are included in the attached project notebooks.

Land application sites are managed according to federal, state and local requirements. This includes the management practices as described in 40 CFR 503.14. Land application sites are subject to an environmental review under the State Environmental Protection Act (SEPA). This includes contact with the Washington Department of Fish and Wildlife regarding identification of threatened or endangered species.

Site-specific management practices are developed to best utilize biosolids and prevent negative environmental impacts. Buffer areas from surface waters are designed after review of slopes, stream class, site vegetation and soils, with a minimum of 10 meters between application areas and surface water and 100 feet from wells. Application rates are agronomic, designed to enhance soils and meet the nitrogen needs of crops and vegetation while minimizing the potential for nitrogen movement to groundwater. Crop nutrient requirements are obtained from fertilizer guides or agronomists. Timing of biosolids applications are coordinated with crop management requirements of each site. The Class B site restrictions in 40 CFR 503.32 and WAC 173-308 are reviewed and appropriate notification about access and crop management are provided to the local sponsor and landowner. Special approval from the permitting authority will be requested for soil reclamation projects if the proposed application is greater than an agronomic application rate.

Advance Notice to Permitting Authority

All site-specific information is developed and submitted to delegated local health districts and the state Department of Ecology. Advance notice will be at least 30 days as required by state law. This notification will be revised as necessary to reflect any changes in federal and state permit system.

Advance Public Notice

Public notice for new land application sites will be conducted in accordance with the state biosolids rule (WAC 173-308-310(11)) and the State Environmental Protection Act. King County recognizes that community awareness and support are important to the success of a land application program, and has developed a public involvement plan for each project. These are developed in cooperation with local sponsors and contractors. The public information effort may include county or local newspapers, mailings or direct contact with neighbors, public meetings, or site tours for local citizens.